

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2003/002494

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7 H04B 7/26

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 H04B 7/26, H04B 7/12, H04B 7/204, H04B 7/155

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
KR, JP as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 13-024618 A2 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) 26 JAN 2001 (26.01.2001) see the detailed description and fig.4 - 10	1, 2 3 - 25
Y	WO 99/44316 (SONY CORPORATION) 02 SEP 1999 (02.09.1999) see the claims	1, 2 3 - 25
Y	KR 10-1998-033158 A (NOKIA MOBILE PHONES LTD.) 25 JUL 1998 (25.07.1998) see detailed description and fig. 2 - 12	1, 2 3 - 25
A	WO 02/87113 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) 31 OCT 2002 (31.10.2002) see the whole document	1 - 25
A	KR 10-2001-0064225 A (KILLOK OH) 09 JUL 2001 (09.07.2001) see the whole document	1 - 25

 Further documents are listed in the continuation of Box C. See patent family annex.

- \* Special categories of cited documents:
- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search  
21 JUNE 2004 (21.06.2004)Date of mailing of the international search report  
21 JUNE 2004 (21.06.2004)Name and mailing address of the ISA/KR  
  
Korean Intellectual Property Office  
920 Dunsan-dong, Seo-gu, Daejeon 302-701,  
Republic of Korea  
Facsimile No. 82-42-472-7140Authorized officer  
NAM, Ki Young  
Telephone No. 82-42-481-5710

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
PCT/KR2003/002494

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 13-024618 A2	26.01.2001	EP 1065804 A2 KR 10-2001-15127 A	03.01.2001 26.02.2001
WO 99/44316	02.09.1999	EP 0986196 A1 CN 1266565T KR 10-2001-12112 A	02.09.1999 26.02.1999 15.02.2001
KR 10-1998-033158 A	25.07.1998	NONE	
WO 02/87113	31.10.2002	KR 10-2003-11904 A	11.02.2003
KR 10-2001-0064225 A	09.07.2001	NONE	